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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,037	01/12/2001	Mark William Hamersky	7914M	1859

27752 7590 10/01/2002

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EXAMINER

PARA, ANNETTE H

ART UNIT PAPER NUMBER

1661

DATE MAILED: 10/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/760,037

Applicant(s)

HAMERSKY ET AL.

Examiner

Annette H. Para

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

The election of species requirement is withdrawn.

#### Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 31-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 31 recites the limitation "the adjunct ingredients" in d. There is insufficient antecedent basis for this limitation in the claim.

OK

#### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims ~~1-9,11~~, 12, 28-33, 35-37, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Lonza Ltd. Lonza teaches a composition for keeping flowers fresh comprising glucose and succinate as energy source, quaternary ammonium (myristyl dimethyl benzyl ammonium chloride dihydrate, didecyl dimethyl ammonium chloride, a mixture 50% of octyl decyl dimethyl ammonium chloride ,25% dioctyl dimethyl ammonium chloride and 25% didecyl dimethyl ammonium chloride) as fungicide, succinic acid and citric acid as a buffer, and additional ingredients.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims ~~1,2,11~~ 1-18, 31, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lonza Ltd in view of Doi et al. and in view of Frossard et al.

Lonza Ltd teaches the use of different biocides in floral preservatives such as quaternary ammonium and fungicide as discussed above. Lonza Ltd does not disclose the use of sucrose.

Doi et al. disclose a process of improving the postharvest life of cut flowers and promoting bud opening by adding sucrose to a quaternary ammonium solution (entire document, see especially page 1058, column 2).

Frossard et al. teach a liquid medium used for conserving cut flowers containing nutrients (saccharose, glucose), biocides (aldehyde formique) and citric acid to maintain the PH of the solution between 4 to 4.5, which is not favorable to the bacteria development (entire document).

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It would have been obvious to modify the method of Lonza Ltd by including sucrose as a flower-opening promoter. One would have been motivated to do so, given the importance of these three factors: food, biocides, and low PH as taught in the art. It would have been obvious to adjust the composition of the buffer to obtain a PH of 4, given the teaching of Frossard et al. Reasonable expectation of success would have been expected knowing that cut flowers need food and water to survive as well as a bacteria-free medium. Therefore the skilled artisan would have expected that adding these ingredients would have increased the chance of the flower survival. Thus, the invention as a whole was clearly *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Claims 1, 10, 19-21, 31, 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lonza Ltd in view of Law.

Lonza Ltd teaches the use of different biocides in floral preservatives such as quaternary ammonium compounds and fungicide. Lonza Ltd also teaches formulating the preservative as a granular composition (example 2). Lonza Ltd does not teach the use of isothiazolone Antimicrobials. Law discloses a composition which comprise a isothiazolone, an a strong acid in addition to a quaternary ammonium salt, teaching that this combination exhibits a synergistic increase in microbial activity (column 1, line 29). Law also teaches that isothiazolones inhibit deactivation of quaternary ammonium compounds by organic matter.

It would have been obvious to modify the method of Lonza Ltd by adding an isothiazolone antimicrobials to the quaternary ammonium compounds. One would have been motivated to do so, given the importance of the synergistic increase in the microbial activity, knowing that cut flowers are organic matter which minimize the antimicrobial effect of quaternary compounds. Therefore the skilled artisan would have expected that adding this ingredient would have increased the flower survival. Thus, the invention as a whole was clearly *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

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Claims 22,23, 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lonza in view of Law as applied to claims 1, 10, 19-21, 31, 38-41 above, and further in view of Longley and Frossard et al. Lonza and Law do not disclose the use of BIT (1,2-benzisothiazolin-3-one) as antimicrobial, the importance of a low PH.

Longley discloses that BIT (1,2-benzisothiazolin-3-one) is a disinfectant used to prevent the growth of bacteria, molds, or yeast and is safe to use on plant because it is sprayed on plant as inert ingredient in Foray 48B(page 2, column 1).

Frossard et al. teach a liquid medium used for conserving cut flowers containing nutrients (sucrose, glucose), biocides (aldehyde formique) and citric acid to maintain the PH of the solution between 4 to 4.5. PH, which is not favorable to the bacteria development.

It would have been obvious to modify the method of Lonza Ltd in view of Law by adding 1,2-benzisothiazolin-3-one antimicrobial to the quaternary compounds and to maintain a low PH. One would have been motivated to do so, given the suggestion by Lonza Ltd to include a fungicide and knowing that 1,2-benzisothiazolin-3-one is a fungicide safe to use on plants as taught by Longley and that a low PH is not favorable to bacteria development as taught by Frossard et al. Therefore the skilled artisan would have expected that adding these ingredients would have increased the flower survival. Thus, the invention as a whole was clearly *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lonza in view of Law, Longley and Frossard et al. as applied to claims 22,23, 25-30 above, and further in view of Philosoph-Hadas et al. Lonza, Law, Longley, and Frossard teach floral preservative comprising quaternary ammonium compounds, nutrients, buffer as discussed above. Lonza, Law, Longley, and Frossard et al. do not disclose the use of calcium ion sequestrant.

Philosoph-Hadas et al disclose a method of controlling the gravitropic response of cut flower by application of various calcium sequestrants (abstract).

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It would have been obvious to modify the method of Lonza Ltd in view of Law, Longley, and Frossard by adding calcium sequestrant to the medium. One would have been motivated to do so, given the suggestion by Philosoph-Hadas to use calcium sequestrant to control the bending of the stem of cut flowers. Therefore the skilled artisan would have expected that adding this ingredient would increase the usefulness of the composition. Thus, the invention as a whole was clearly *prima facie* obvious to one of ordinary skill in the art at the time the invention was made

#### Conclusion

No claims are allowed.

#### Future Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Annette H. Para whose telephone number is (703) 308-6327. The Examiner can normally be reached Monday through Thursday from 6:00 am to 4:30 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Bruce Campell, can be reached on (703) 308-4205. The fax number for the group is (703) 305-3014 or (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application should be directed to the Matrix Customer Service Center whose telephone number is (703) 308-0196.

A.H.P



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